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9 *Attorneys for Respondent, Nevada  
Division of Environmental Protection*

8  
9  
10 UNITED STATES DISTRICT COURT

11 DISTRICT OF NEVADA

12 PETER J. VOGGENTHALER, at al., ) Case No. 2:08-cv-01618-RCJ-GWF  
13 Plaintiffs, ) (consolidated with 3:09-cv-00231-RCJ-  
14 v. ) GWF)  
15 MARYLAND SQUARE, LLC, et al., )  
16 Defendants, )  
17 AND RELATED CROSS CLAIMS AND THIRD )  
18 PARTY CLAIMS )  
19 STATE OF NEVADA, DEPARTMENT OF )  
20 CONSERVATION AND NATURAL )  
21 RESOURCES, et al., )  
22 Plaintiffs, )  
23 v. )  
24 MARYLAND SQUARE SHOPPING CENTER, )  
25 et al., )  
26 Defendants )  
27 AND RELATED THIRD PARTY CLAIMS )  
28

NOTICE OF NEVADA DIVISION OF  
ENVIRONMENTAL PROTECTION'S  
DOCUMENT FILING PURSUANT TO  
PERMANENT INJUNCTION (DOC 592)

State of Nevada, Conservation and Natural Resources, its Division of Environmental Protection, Bureau of Corrective Actions ("NDEP"), by and through counsel, Catherine Cortez Masto, Attorney General for the State of Nevada, and Wayne Klomp, Deputy Attorney General, hereby submits notice of document filings pursuant to the Permanent Injunction ///

1 issued on December 27, 2010, (Dkt. 592). These documents are being submitted pursuant to  
2 Sections VI and XI of the Permanent Injunction, as follows:

3 1. Exhibit A, NDEP letter dated December 4, 2013, re: Third Quarter 2013  
4 Groundwater Monitoring and Sampling Report.

5 2. Exhibit B, NDEP letter dated February 21, 2014, re: Fourth Quarter 2013  
6 Groundwater Monitoring and Sampling Report.

7 DATED this 18<sup>th</sup> day of March, 2014.

8 CATHERINE CORTEZ MASTO  
9 Attorney General

10 By: /s/ Wayne Klomp  
11 WAYNE KLOMP,  
12 Deputy Attorney General  
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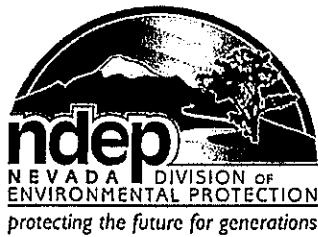
## **CERTIFICATE OF SERVICE**

I, Heather Cooney, certify that I am an employee of the Office of the Attorney General, State of Nevada, and that on this 18<sup>TH</sup> day of March 2014, I electronically filed the foregoing **NOTICE OF NEVADA DIVISION OF ENVIRONMENTAL PROTECTION'S DOCUMENT FILING PURSUANT TO PERMANENT INJUNCTION (DKT NO. 592)** via electronic filing with the Clerk of the Court for the United States District Court of Nevada by using the CM/ECF system. I certify that all participants in this case are registered CM/ECF users and that the service will be accomplished by the CM/ECF system.

/s/ Heather Cooney  
Heather Cooney, Legal Secretary II  
an employee of the Office of the  
Nevada Attorney General

**Exhibit “A”**

**Exhibit “A”**



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

December 4, 2013

Irwin Kishner  
Herman Kishner Trust  
252 Convention Center Drive, Ste 12A  
Las Vegas, NV 89109

Maryland Square Shopping Center, LLC  
c/o Thomas E. Vandenburg  
Dongell Lawrence Finney LLP  
707 Wilshire Blvd, 45th Floor  
Los Angeles, CA 90017

Maryland Square, LLC  
c/o Franklin H. Levy  
Lawson & Weitzen, LLP  
88 Black Falcon Avenue  
Boston, MA 02210

SBIC  
c/o Jeffrey T. Oberman  
Levin & Oberman  
361 N. Canon Dr.  
Beverly Hills, CA. 90210

Subject: **Third Quarter 2013 Groundwater Monitoring and Sampling Report**

Facility: Al Phillips the Cleaner (former)  
3661 S. Maryland Parkway  
Las Vegas, Nevada  
Facility ID: H-000086

Dear Messrs. Kishner, Swickard, Levy and Oberman:

The Nevada Division of Environmental Protection (NDEP) received the *Third Quarter 2013 Groundwater Monitoring and Sampling Letter Report* prepared by Cardno ATC Associates, Inc. (Cardno ATC) on behalf of the Herman Kishner Trust (Trust) and Maryland Square Shopping Center, LLC (MSSC LLC), dated October 25, 2013 and received in hard copy on October 28, 2013.

## Overview of Reported Results

The Third Quarter Report provides the analytical data for groundwater samples collected from 36 individual, multi-level, and nested wells across the site. Three new monitoring wells were installed and sampled (MW-41, MW-42 and MW-43); these wells provide data that further constrain the known extent of the tetrachloroethylene (PCE) plume to the north and to the east.

Perhaps the most notable result reported in the Third Quarter Report, was the sudden and significant change in the concentration of PCE in well MW-19I and the MW-19D series of nested wells (MW-19-D1, MW-19D2 and MW-19D3). Well MW-19I is located close to the nested wells of the MW-19D series and was designed and used as a pumping well as part of the vertical delineation and pilot testing phase. All these wells are near the injection point used during the in situ chemical oxidation (ISCO) pilot testing.



Maryland Square Shopping Center, LLC  
 Kishner, Swickard, Levy and Oberman  
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Potassium permanganate injections (nearly 20,000 gallons injected between March 11 through 20, 2013) were performed as part of the pilot testing on the eastern parking lot of the Mall. Data are in the table below.

Well	Well Location	Screen Depth	Pre-test PCE Levels	Post-test PCE Levels
MW-19	15 ft upgradient of injection	19 to 34 ft	1,000 µg/L	520 to 840 µg/L
MW-19I	25 ft downgradient of injection	30 to 50 ft	700 µg/L	0.50 µg/L
MW-19D1	10 ft crossgradient of injection	31 to 51 ft	300 µg/L	690 to 990 µg/L
MW-19D2	10 ft crossgradient of injection	60 to 70 ft	170 µg/L	<0.50 µg/L
MW-19D3	10 ft crossgradient of injection	92 to 102 ft	0.50 µg/L	710 µg/L

µg/L = micrograms per liter

The above data for the MW-19D series of nested wells suggest two possibilities: (1) the permanganate injections (nearly 20,000 gallons injected from 20 to 60 ft bgs, over 8 days, at pressures of as much as 30 pounds per square inch [psi]) displaced the PCE-contaminated groundwater from the shallow zone and pushed the contamination to the deeper zone (>90 ft below ground surface [bgs]) of the shallow groundwater system, or (2) the well seals in the nested well failed, allowing contaminated groundwater to flow along a preferential pathway and down into the deeper well (MW-19D3), which is screened at 92 to 102 ft bgs.

To evaluate which of the above scenarios is the dominant cause of the dramatic and sudden increase in PCE concentrations (from 0.50 to 710 µg/L) in the deep well, MW-19D3 (92 to 102 ft screen), the NDEP requests that a tracer study be performed in which a tracer solution is injected into the shallow well, MW-19D1, at a pressure equivalent to the injection pressures used during the permanganate pilot study (i.e., as much as 30 psi).

The NDEP notes that any in-situ technology involving injection also involves displacement of a volume of groundwater equal to the volume of injectate. Injection runs the risk of spreading the contaminated groundwater into previously clean areas or zones. This is one of the concerns at any site where in-situ injection technologies are used, and one of the reasons the NDEP required that a groundwater extraction technology be retained as a possible remedy for the Maryland Square PCE Site.

Analysis of metals (arsenic, manganese, chromium and hexavalent chromium) in groundwater samples collected downgradient of the pilot testing area in the eastern mall parking lot shows that concentrations of arsenic appear largely unaffected by the ISCO testing, whereas concentrations of manganese appear to remain above pre-test levels in wells downgradient of the permanganate injection well; concentrations of unspeciated chromium appear to have declined after an initial spike (hexavalent chromium could not be measured in wells containing high concentrations of potassium permanganate).

Wells downgradient of the PulseOx (peroxide-activated ozone) pilot testing likewise showed little change in the concentrations of arsenic, however, concentrations of chromium and hexavalent chromium increased by as much as two orders of magnitude and remain elevated over pre-test concentrations. In particular, concentrations of hexavalent chromium remain high (as much as 120 µg/L) in third-quarter samples collected from some wells.

Results from the Mann-Kendall trend test (see Table 2 and Appendix C) indicate that concentrations of PCE appear to be decreasing in many wells across the site. However, the report shows increasing or generally upward trends in concentration for several wells close to the source area (MW-7, MW-5, MW-6 and MW-3), and for some wells near the golf course (MW-27, MW-31, MW-37 and MW-38).

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## NDEP Requirements

The report recommends "*continuing to evaluate PCE concentrations in MW-19D, which may require abandonment.*" The NDEP requests that a tracer test be performed to evaluate the integrity of the wells seals in the nested wells, MW-19D1, MW-19D2 and MW-19D3, or that the Trust propose another method to test integrity of the well seals in this set of nested wells.

The report also recommends continued monitoring and sampling of the site monitoring wells; the NDEP concurs with this recommendation, but the NDEP would be open to suggestions to modify the sampling frequency at monitoring wells across the site. Please provide proposed modifications at your convenience, and the NDEP will review and respond to your proposed modifications to the sampling frequency. Monitoring should focus on collecting those data that are needed to assess effectiveness of the groundwater remedy and demonstrate plume stability (or not). Provide these recommendations, along with justifications for modifying sampling frequency, in the next quarterly report or in a separate letter to the NDEP.

The NDEP requests that vertical gradients be calculated where possible, depending on well locations and well screen depths. Provide results of these calculations in the next quarterly report.

The Fourth Quarter 2013 Groundwater Monitoring Report is due by January 31, 2014.

If you have any questions or require additional information regarding this letter, contact me by telephone at (775) 687-9496 or e-mail at [msiders@ndep.nv.gov](mailto:msiders@ndep.nv.gov)

Sincerely,



Mary A. Siders, Ph.D.  
Bureau of Corrective Actions  
Fax (775) 687-8335

cc: Greg Lovato, Bureau Chief, Bureau of Corrective Actions, NDEP, Carson City, NV  
Scott Smale, Supervisor, BCA, NDEP, Carson City, NV  
Todd Croft, Supervisor, BCA, NDEP, Las Vegas, NV  
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Maryland Square Shopping Center, LLC  
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December 4, 2013  
Page 4 of 4

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James Elliot, P.G., Tetra Tech, 5383 Hollister Ave., Suite 130, Santa Barbara, CA 93111 [james.elliott@tetrtech.com](mailto:james.elliott@tetrtech.com)

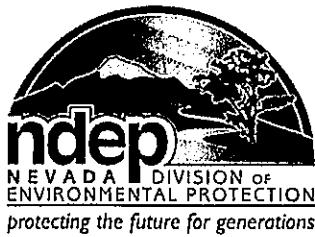
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Andrew Stuart, Senior Project Manager, ATC Associates, 2925 E. Patrick Lane, Suite M, Las Vegas, NV 89120  
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cc: Joe Blagg, Project Manager, Diversified Real Estate Group, 4255 Dean Martin Rd, Ste J, Las Vegas, NV 89103  
John Griffin, Kaempfer Crowell, 510 W Fourth St., Carson City NV 89703.  
Jan Greben, 125 E. De La Guerra St, Ste 203, Santa Barbara, CA 93101-7204  
Alexander Robertson, 32121 Lindero Canyon Rd, Ste 200, Westlake Village, CA 91361  
Jan Villaire, Coordinator, Environmental Compliance, Safety & Environmental Services, 1700 Galleria Drive, Bldg C, Henderson, NV 89014  
Glenn D. Phillips, The Travelers Companies, Inc., SLCU-Suite 160, 4650 Westway Park Blvd., Houston Texas 77041

# **Exhibit “B”**

**Exhibit “B”**



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdzoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

February 21, 2014

Irwin Kishner  
Herman Kishner Trust  
252 Convention Center Drive, Ste 12A  
Las Vegas, NV 89109

Maryland Square Shopping Center, LLC  
c/o Thomas E. Vandenburg  
Dongell Lawrence Finney LLP  
707 Wilshire Blvd, 45th Floor  
Los Angeles, CA 90017

Maryland Square, LLC  
c/o Franklin H. Levy  
Lawson & Weitzen, LLP  
88 Black Falcon Avenue  
Boston, MA 02210

SBIC  
c/o Jeffrey T. Oberman  
Levin & Oberman  
361 N. Canon Dr.  
Beverly Hills, CA. 90210

Subject: **Fourth Quarter 2013 Groundwater Monitoring and Sampling Report**

Facility: Al Phillips the Cleaner (former)  
3661 S. Maryland Parkway  
Las Vegas, Nevada  
Facility ID: H-000086

Dear Messrs. Kishner, Swickard, Levy and Oberman:

The Nevada Division of Environmental Protection (NDEP) received the *Fourth Quarter 2013 Groundwater Monitoring and Sampling Letter Report* prepared by Cardno ATC Associates, Inc. (Cardno ATC) on behalf of the Herman Kishner Trust (Trust) and Maryland Square Shopping Center, LLC (MSSC LLC), dated January 28, 2014 and received in hard copy on January 31, 2014.

## Overview of Reported Results

The Fourth Quarter Report provides the analytical data for groundwater samples collected from 49 individual, multi-level, and nested wells across the site. Three new monitoring wells (MW-41, MW-42 and MW-43) that were installed and sampled in the third quarter of 2013, were sampled again in the fourth quarter. Data from these three wells bound the extent of the tetrachloroethylene (PCE) plume to the north and to the east.

A new milestone was set in the fourth quarter, with the detection of 10,000 micrograms per liter ( $\mu\text{g}/\text{L}$ ) of PCE in the groundwater sample collected from well MW-14I. This is the highest concentration of PCE ever reported for groundwater at the site. Well MW-14I has a 40-55 ft screened interval and lies on the east side of S. Maryland Parkway, directly opposite the former dry cleaners. Well MW-14I, along with MW-19I (34-54 ft screen), was installed in July 2012 to function as a pumping well for the aquifer tests. Initial samples from each well contained 7,200 (MW-14I) and 690  $\mu\text{g}/\text{L}$  PCE (MW-19I).



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**Pilot Testing: Potassium Permanganate ( $KMnO_4$ ) and Pulse-Ox Injections**

Potassium permanganate injections (nearly 20,000 gallons injected between March 11 through 20, 2013) were performed as part of the pilot testing on the eastern parking lot of the Mall. Well MW-19I and nested wells MW-19D1 through 19D3 are located in the vicinity of oxidant injections performed as part of the pilot testing (see Attachment 1 to this letter).

Following injections of potassium permanganate ( $KMnO_4$ ), concentrations of PCE in MW-19I declined from 710  $\mu\text{g/L}$  to nondetectable (<0.50  $\mu\text{g/L}$ ); however, concentrations of PCE in deep well MW-19D3 (92-102 ft screen) showed a large increase, from 0.68  $\mu\text{g/L}$  to 710  $\mu\text{g/L}$  over the same time period. These data suggest that the 20,000 gallons of  $KMnO_4$  solution injected nearby may have displaced the PCE plume to greater depths.

The fourth-quarter sample from MW-19D3 showed that the concentration of PCE is still elevated when compared with data collected before the injections. Taken as a whole, these data show why any remediation technology that uses injection must be carefully designed to avoid displacing the contaminated groundwater into previously clean areas, laterally or vertically.

Two sets of multi-depth wells were used to evaluate the results of the Pulse-Ox pilot testing: nested wells MW-20D1, MW-20D2, and MW-20D3, and multi-level wells MW-40 CMT-30 to CMT-60 (the CMT wells have 6-inch screened intervals to provide detailed information on the vertical distribution of PCE). A summary of pre-test and post-test concentrations of PCE in the observation wells for  $KMnO_4$  and Pulse-Ox is provided below:

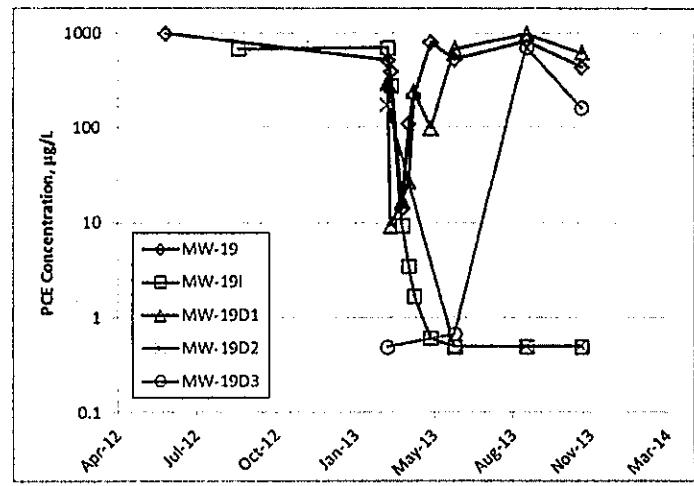
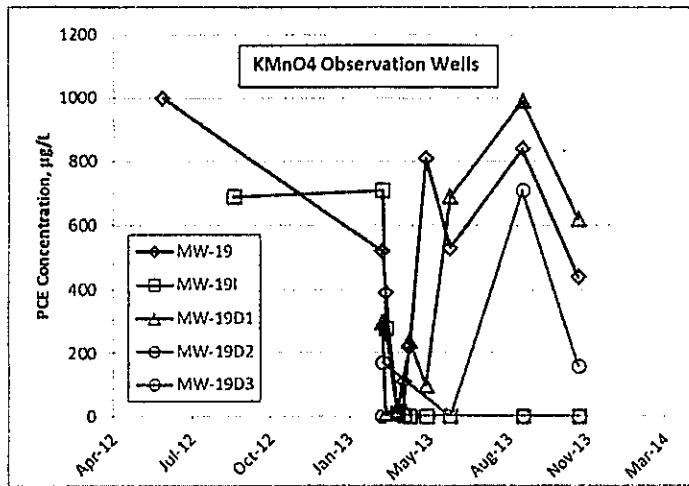
Well	Well Location	Screen Depth (feet bgs)	Pre-test PCE Levels (immediately before pilot testing)	Post-test PCE Levels
<b>Observation Wells for Potassium Permanganate Testing</b>				
MW-19	15 ft upgradient of injection	19 to 34 ft	1,000 $\mu\text{g/L}$	520 to 840 $\mu\text{g/L}$
MW-19I	25 ft downgradient of injection	30 to 50 ft	700 $\mu\text{g/L}$	0.50 $\mu\text{g/L}$
MW-19D1	10 ft crossgradient of injection	31 to 51 ft	300 $\mu\text{g/L}$	690 to 990 $\mu\text{g/L}$
MW-19D2	10 ft crossgradient of injection	60 to 70 ft	170 $\mu\text{g/L}$	<0.50 $\mu\text{g/L}$
MW-19D3	10 ft crossgradient of injection	92 to 102 ft	0.50 $\mu\text{g/L}$	710 $\mu\text{g/L}$
<b>Observation Wells for Pulse-Ox Testing</b>				
MW-20	15 ft upgradient of injection	19 to 35 ft	290 $\mu\text{g/L}$	470 to 850 $\mu\text{g/L}$
MW-20D1	8 ft crossgradient of injection	25 to 45 ft	69 $\mu\text{g/L}$	3.6 to 260 $\mu\text{g/L}$
MW-20D2	8 ft crossgradient of injection	55 to 65 ft	25 $\mu\text{g/L}$	1.1 to 210 $\mu\text{g/L}$
MW-20D3	8 ft crossgradient of injection	90 to 100 ft	0.66 $\mu\text{g/L}$	<0.50 to 62 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	30-30.6 ft	4.7 $\mu\text{g/L}$	0.86 to 10 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	35-35.6 ft	48 $\mu\text{g/L}$	2.3 to 12 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	40-40.6 ft	270 $\mu\text{g/L}$	37 to 150 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	45-45.6	310 $\mu\text{g/L}$	47 to 120 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	50-50.6	280 $\mu\text{g/L}$	24 to 120 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	55-55.6	390 $\mu\text{g/L}$	38 to 570 $\mu\text{g/L}$
MW-CMT	27 ft downgradient of injection	60-60.6	1200 $\mu\text{g/L}$	20 to 1400 $\mu\text{g/L}$

$\mu\text{g/L}$  = micrograms per liter; bgs = below ground surface

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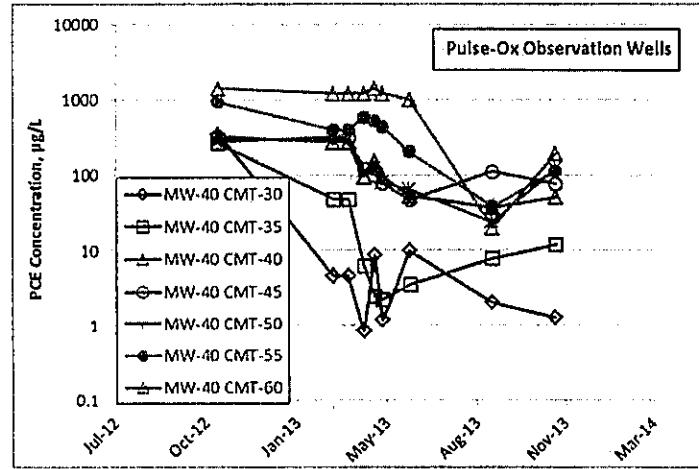
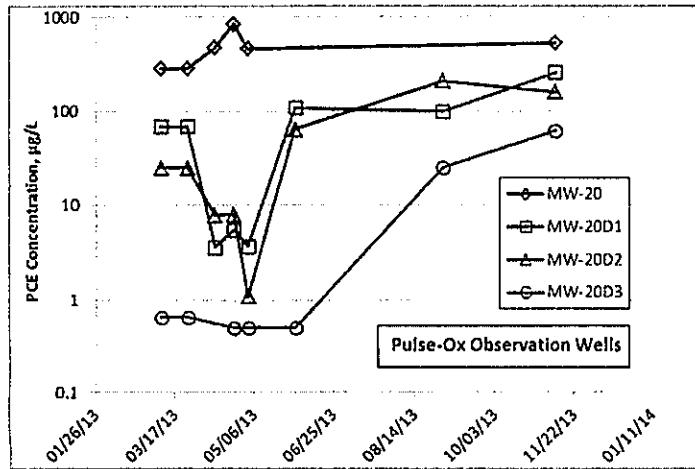
#### Potassium Permanganate – 6 Months after Pilot Testing

Data from observation wells suggest that displacement may have produced results that initially appeared successful in decreasing concentrations of PCE in groundwater. The longer-term, post-testing data from MW-19D3 appears to show that the mass of injectate pushed the plume deeper into previously uncontaminated layers. Six months after the pilot testing, concentrations of PCE are lower in two wells, higher in two wells, and largely unchanged in one well. The downgradient well, MW-19I showed decreased concentrations, as did one of the crossgradient wells (MW-19D2).



#### Pulse-Ox – 6 Months after Pilot Testing

Two sets of multi-depth wells were used to evaluate the results of the Pulse-Ox pilot testing. Wells MW-20 (upgradient) and MW-20D1 through MW-20D3 (crossgradient) all showed increased concentrations of PCE after 6 months. Downgradient wells of the MW-CMT series showed decreased concentrations overall, with only three of the seven wells rebounding to concentrations exceeding 100 µg/L. Before the Pulse-Ox testing, all seven CMT wells had concentrations of PCE that exceeded 100 µg/L.



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The current data are somewhat ambiguous, and suggest the possibility that injections may promote the uncontrolled migration of contaminated groundwater. More time and monitoring may be needed to assess the actual longer-term results of the pilot tests.

#### Secondary Effects of In Situ Oxidation

In addition to the uncontrolled migration of oxidant and contaminated groundwater, use of in situ oxidation has the potential to oxidize and mobilize certain naturally occurring metals. The report addresses this concern, and provides data and discussion on the topic (see Table 3 in the subject report). Downgradient wells show increased and elevated concentrations of manganese, total chromium, and hexavalent chromium. Concentrations of arsenic in groundwater do not appear to be affected by the pilot testing.

The federal drinking water standard for chromium is 100 µg/L, and applies to both chromium-III and chromium-VI; the NDEP has adopted these standards. Two of the downgradient wells (MW-19I and MW-40 CMT-30 exceed the standards for chromium. (Note: the subject report misstates the NDEP's level of 100 µg/L for hexavalent chromium, as 110 µg/L. See: [https://ndep.nv.gov/bmi/docs/bcl\\_calculations\\_august\\_2013.pdf](https://ndep.nv.gov/bmi/docs/bcl_calculations_august_2013.pdf) which is cited in the subject report as the source of the NDEP's action level.)

Increased concentrations of manganese are expected where potassium permanganate is the oxidant; however, there are no health-based federal standards for manganese. The secondary standard of 50 µg/L is based on aesthetic qualities, such as color and taste. Seven wells downgradient of the pilot test injections exceed this secondary standard.

#### Vertical Gradients

Data from well pairs were used to evaluate vertical gradients at the location of each well pair. Of the nine well pairs evaluated, six showed upward vertical gradients (0.0008 to 0.0729) and three showed downward vertical gradients (0.0409 to 0.1930). It is unclear if vertical gradients have influenced migration of the dissolved-phase PCE; however, any pure-phase PCE released at the source would migrate downward based on density alone.

#### Mann-Kendall Trend Test

Results from the Mann-Kendall trend test (see Table 2 and Appendix C) indicate that concentrations of PCE appear to be decreasing in many wells across the site. However, the test results show increasing (>95% confidence), probably increasing (>90% confidence) and "generally upward" (i.e., positive "S" value and confidence >80%) trends in concentration for several wells close to the source area (MW-3, MW-5, MW-6, MW-6D3, and MW-7), east of Boulevard Mall (MW-19D3, MW-20D1, MW-20D2, MW-20D3, and for some wells east of or near the golf course (MW-27, MW-31, and MW-38).

#### Sampling Frequency

In response to the NDEP's letter of December 4, 2013, the report makes some recommendations to modify the sampling frequency for site wells. These recommendations are based on the number of samples and results of the trend analysis. Specifically, a decreased sampling frequency was recommended if there were at least 8 samples with data showing a decreasing trend.

The NDEP has evaluated the proposed sampling schedule and notes that concentrations of PCE are relatively low in wells MW-7 and MW-9, so even though the test shows a trend of increasing concentration in MW-7, this doesn't merit quarterly sampling. Samples from MW-7 and MW-9 have shown concentrations of PCE less than

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15 µg/L since 2008, so semi-annual sampling should be sufficient for these two wells. Additionally, MW-27 can go to semi-annual monitoring, based on recent results of the trend tests. That reduces the annual number of proposed samples by six; however, due to locations within the neighborhood and results of the trend tests, the NDEP requests that wells MW-6D3, MW-13, MW-14, MW-19, MW-20D1, MW-20D3, MW-23, MW-25, MW-26, and MW-32 be added to third-quarter sampling (i.e., semi-annual sampling of these wells). The NDEP's requested reductions and additions result in a net addition of four samples per year above what the report proposed but, by the NDEP's count, 39 fewer samples per year than the current sampling schedule.

#### NDEP Requirements

1. Sampling Frequency – The NDEP concurs, with minor modifications, to the proposed sampling schedule (see Attachment 2)
2. Three Daily Blank Samples – The NDEP concurs, but requests that these three blank samples still be collected on the last day of sampling during the first quarter of each year.
3. Remediation Monitoring – The NDEP concurs that the monitoring schedule may change after the remedy is installed/activated.
4. Tracer Testing – The NDEP had requested tracer testing to evaluate the integrity of the well seals in the nested wells, MW-19D1, MW-19D2 and MW-19D3, or that the Trust propose another method to test integrity of the well seals in this set of nested wells. The report notes that options are being evaluated.
5. The NDEP requests that vertical gradients continue to be calculated when and where possible. Evaluate whether gradients change over time and discuss results and potential significance of these results in the quarterly reports
6. The NDEP appreciates the application and summary of the trend testing; please continue to conduct this statistical analysis.
7. The First Quarter 2014 Groundwater Monitoring Report is due by April 30, 2014.

If you have any questions or require additional information regarding this letter, contact me by telephone at (775) 687-9496 or e-mail at [msiders@ndep.nv.gov](mailto:msiders@ndep.nv.gov)

Sincerely,



Mary A. Siders, Ph.D.  
Bureau of Corrective Actions  
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Enc (2)

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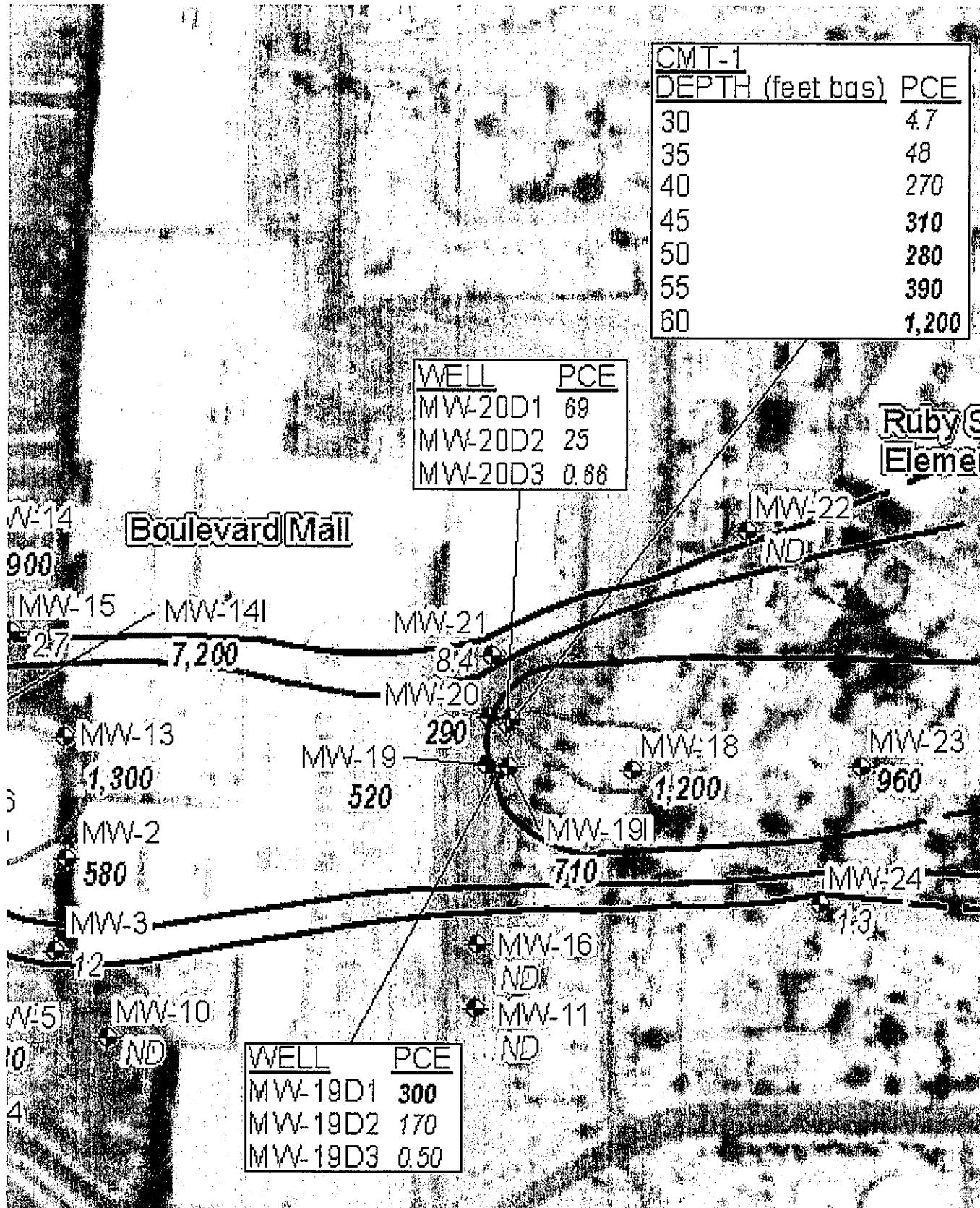
Maryland Square Shopping Center, LLC  
Kishner, Swickard, Levy and Oberman  
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February 21, 2014  
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**ATTACHMENT 1 – Location of Wells in the Vicinity of Pilot Test Injections.**  
 (NDEP Comment Letter, February 21, 2014)



## ATTACHMENT 2 – Current and Proposed Schedule for Sampling Monitoring Wells

2013				2014 - Proposed			
Q1-2013	Q2-2013	Q3-2013	Q4-2013	Q1-2014	Q2-2014	Q3-2014	Q4-2014
MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
MW-2	MW-5	MW-5	MW-2	MW-2	MW-5	MW-5	MW-5
MW-3	MW-6	MW-6	MW-5	MW-3	MW-6	MW-6	MW-6
MW-5	MW-9	MW-9	MW-6	MW-5	MW-7	MW-7	MW-7
MW-6	MW-14	MW-14	MW-7	MW-6	MW-9	MW-9	MW-9
MW-7	MW-17	MW-17	MW-8	MW-7	MW-18	MW-18	MW-18
MW-8	MW-27	MW-34	MW-9	MW-8	MW-27	MW-27	MW-27
MW-9	MW-34	MW-35	MW-12	MW-9	MW-38	MW-38	MW-38
MW-10	MW-35	MW-36	MW-13	MW-10	MW-41	MW-41	MW-41
MW-11	MW-36	MW-37	MW-14	MW-11	MW-42	MW-42	MW-42
MW-12	MW-37	MW-38	MW-17	MW-12	MW-43	MW-43	MW-43
MW-13	MW-38	MW-39	MW-18	MW-13	MW-14I	MW-14I	MW-14I
MW-14	MW-39	MW-14I	MW-19	MW-14	MW-19I	MW-19I	MW-19I
MW-15	MW-14I	MW-19I	MW-20	MW-15	MW-6D1	MW-6D1	MW-6D1
MW-16	MW-19I	MW-6D1	MW-23	MW-16	MW-19D1	MW-19D1	MW-19D1
MW-17	MW-6D1	MW-6D2	MW-25	MW-17	MW-19D2	MW-19D2	MW-19D2
MW-18	MW-6D2	MW-6D3	MW-26	MW-18	MW-19D3	MW-19D3	MW-19D3
MW-19	MW-6D3	MW-19D1	MW-27	MW-19	MW-20D2	MW-20D2	MW-20D2
MW-20	MW-19D1	MW-19D2	MW-30	MW-20	MW40-CMT-30	MW40-CMT-30	MW40-CMT-30
MW-21	MW-19D2	MW-19D3	MW-31	MW-21	MW40-CMT-45	MW40-CMT-45	MW40-CMT-45
MW-22	MW-19D3	MW-20D1	MW-32	MW-22	MW40-CMT-60	MW40-CMT-60	MW40-CMT-60
MW-23	MW-20D1	MW-20D2	MW-33	MW-23	MW-6D3		
MW-24	MW-20D2	MW-20D3	MW-34	MW-24	MW-13		
MW-25	MW-20D3	MW40-CMT-30	MW-35	MW-25	MW-14		
MW-26	MW40-CMT-30	MW40-CMT-35	MW-36	MW-26	MW-19		
MW-27	MW40-CMT-35	MW40-CMT-40	MW-37	MW-27	MW-20D1		
MW-28	MW40-CMT-40	MW40-CMT-45	MW-38	MW-28	MW-2003		
MW-29	MW40-CMT-45	MW40-CMT-50	MW-39	MW-29	MW-23		
MW-30	MW40-CMT-50	MW40-CMT-55	MW-41	MW-30	MW-25		
MW-31	MW40-CMT-55	MW40-CMT-60	MW-42	MW-31	MW-26		
MW-32	MW40-CMT-60		MW-43	MW-32	MW-32		
MW-33			MW-14I	MW-33			
MW-34			MW-19I	MW-34			
MW-35			MW-6D1	MW-35			
MW-36			MW-6D2	MW-36			
MW-37			MW-6D3	MW-37			
MW-38			MW-19D1	MW-38			
MW-39			MW-19D2	MW-39			
MW-40			MW-19D3	MW-41			
MW-14I			MW-20D1	MW-42			
MW-19I			MW-20D2	MW-43			
MW-6D1			MW-20D3	MW-14I			
MW-6D2			MW40-CMT-30	MW-19I			
MW-6D3			MW40-CMT-35	MW-6D2			
MW-19D1			MW40-CMT-40	MW-6D3			
MW-19D2			MW40-CMT-45	MW-19D1			
MW-19D3			MW40-CMT-50	MW-19D2			
MW-20D1			MW40-CMT-55	MW-19D3			
MW-20D2			MW40-CMT-60	MW-20D1			
MW-20D3				MW-20D2			
MW40-CMT-30				MW-20D3			
MW40-CMT-35				MW40-CMT-30			
MW40-CMT-40				MW40-CMT-35			
MW40-CMT-45				MW40-CMT-40			
MW40-CMT-50				MW40-CMT-45			
MW40-CMT-55				MW40-CMT-50			
MW40-CMT-60				MW40-CMT-55			
				MW40-CMT-60			

>80% conf incr      NDEP      NDEP additions      NDEP  
 >90% conf incr      reductions      reductions